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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,519	07/11/2003	James Owen	BEAS-01361US0	6588

23910 7590 03/09/2007		EXAMINER
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SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/09/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>16 January 2007</u>.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4-8,25-30 and 32-37* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4-8,25-30 and 32-37* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>1/18/07</u>.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____ .

DETAILED ACTION

1.   This A request for continued examination under 37 CFR 1.114, including the fee

set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/16/07

has been entered.

2.   Claims 1-2, 4-8, 25-30, and 32-37 are pending in this Office Action. Claims 3, 9-

24, 31 and 38-50 have been cancelled.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of

the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g)

prior art under 35 U.S.C. 103(a).

4.   Claims 1-2, 4-8, 25-30, and 32-37 are rejected under 35 U.S.C. 103(a) as being

unpatentable over US Patent No. 6,325,594 (henceforth referred to as Van Huben) in

view of US Patent No. 6,857,012 (henceforth referred to as Sim).

        Claim 1 teaches by Van Huben as follows: **A storage medium for storing data**

for access by an application program being executed on a computer system,

comprising: a data structure stored in said memory, the data structure including

or referring to: a name (figure 3B; C11:L13-34; figure 11B; C23:L41-51); **a content**

repository identifier (C14:I15-18); a property (figure 3B; C10:L39-56); **a property**

definition, path (figure 3B; C10:L39-56); **a reference to a parent data structure**

(figure 4A; C11:L1-12). **wherein the data structure is logically part of a virtual**

content repository (VCR), and wherein the VCR represents a plurality of content

repositories logically as one single content repository from the application

program's standpoint ; and **wherein the path uniquely specifies the data**

structure's location in the VCR(C14:L9-30).

        Van Huben does not explicitly indicate claimed VCR represents plurality of

content repositories logically as one single content repository.

Sim teaches stations of SCDN are organized in a logical virtual tree structure in which each node in the tree has a set of attributes. Thus, each Station has an attribute set that is stored in the node and can be represented in any convenient data structure, e.g., the attribute set can be represented as an attribute bitmap. Each Station (i.e., node) also contains a representation of the rolled up attribute set of each of the station's child-Stations. This representation is called the "Rolled Up Set of Attributes" and any convenient data structure can be used for it, e.g., a "Rolled Up Bitmap", which may be the defined as the "binary OR" combination of all rolled up attribute bitmaps from the child-Stations. The distribution servers within a Distribution Server Cluster use the attribute bitmap to distribute and route portions of large payload files and they use the aggregated rolled-up attribute bitmap to terminate unnecessary propagation of messages. One of the Stations in an SCDN is designated the "Central Station". The Central Station holds an attribute database table that matches text strings to bit positions, e.g., a reference table. A data repository for all content but may contain some or all the content (see col. 25, lines 27-48, Sim).

It would have been obvious to one ordinary skill in the data processing art at the time of the present invention to combine the cited references because VCR represents a plurality content repositories logically as one single content repository of Sim's teaching would have allowed Van Huben' system to optimized, so that large payload files can be distributed across existing networks (including the Internet and corporate intranets) using a transport layer network overlay to push content to the edge of the network as suggested by Sim's at col. 9, lines 9-12.

Claim 2 is teaches by Van Huben as in claim 1, **wherein the content repository identifier comprises: a repository name (C14:L30-40); and a content identifier that is unique for the content repository (C14:L15-20).**

Claim 3 is teaches by Van Huben as in claim 1, **further comprising:**

Claim 4 is teaches by Van Huben as in claim 1, **wherein: a property is an association between a name and at least one value (C10:L39-56; C17:L5-13); and wherein the at least one value can be stored in one of the at least one content repositories (C10:L39-56; C17:L5-13).**

Claim 5 is teaches by Van Huben as in claim 4, **wherein: the at least one value can be a text string, a number, an image, an audio/visual presentation, or binary data** (C10:L39-56; being a computer implemented data array the data contained within *must* be represented as binary data).

Claim 6 is teaches by Van Huben as in claim 1, **wherein: the property definition can specify at least one of the following for the property: property choices; a reference; a data type; whether the property is mandatory; whether the property is multi-valued; whether the property is primary; whether the property is read-only; and whether the property is restricted (C10:L54-55).**

Claim 7 is teaches by Van Huben as in claim 1, **wherein: the data structure is hierarchically related to other data structures and the at least one content repository** (figure 4A; C11:L1-12).

Claim 8 is teaches by Van Huben as in claim 7, **wherein: the data structure is hierarchically inferior to the at least one content repository** (figure 4A; C11:L1-12).

Claim 25 is teaches by Van Huben as follows: **storage medium for storing data**

for access by an application program being executed on a computer system,

comprising: a first object storage medium to provide a first group of services

related to interacting with a hierarchical namespace (figure 2, element 24; C13:L47-

49); **a second object storage medium to provide a second group of services**

related to associating information with the first object (figure 2, elements 23 & 24;

C13:L34-43); **a third object storage medium to provide a third group of services**

related to describing attributes of the second object (figure 2, elements 22 & 23;

C13:L17-30); **wherein the first object is logically part of a virtual content**

repository (VCR) and includes,...., and wherein the VCR represents plurality

content repositories logically as one single content repository from the

application program's standpoint (figure 2, element 21; C12:L24-33).

Van Huben does not explicitly indicate claimed VCR represents plurality of

content repositories logically as one single content repository.

Sim teaches stations of SCDN are organized in a logical virtual tree structure in

which each node in the tree has a set of attributes. Thus, each Station has an attribute

set that is stored in the node and can be represented in any convenient data structure,

e.g., the attribute set can be represented as an attribute bitmap. Each Station (i.e.,

node) also contains a representation of the rolled up attribute set of each of the station's

child-Stations. This representation is called the "Rolled Up Set of Attributes" and any

convenient data structure can be used for it, e.g., a "Rolled Up Bitmap", which may be

the defined as the "binary OR" combination of all rolled up attribute bitmaps from the

child-Stations. The distribution servers within a Distribution Server Cluster use the

attribute bitmap to distribute and route portions of large payload files and they use the

aggregated rolled-up attribute bitmap to terminate unnecessary propagation of

messages. One of the Stations in an SCDN is designated the "Central Station". The

Central Station holds an attribute database table that matches text strings to bit

positions, e.g., a reference table. A data repository for all content but may contain some

or all the content (see col. 25, lines 27-48, Sim).

It would have been obvious to one ordinary skill in the data processing art at the

time of the present invention to combine the cited references because VCR represents

a plurality content repositories logically as one single content repository of Sim's

teaching would have allowed Van Huben' system to optimized, so that large payload

files can be distributed across existing networks (including the Internet and corporate

intranets) using a transport layer network overlay to push content to the edge of the

network as suggested by Sim's at col. 9, lines 9-12.

Claim 26 is teaches by Van Huben as in claim 25, **wherein the first group of
services comprises: first functions that enable associating the first object with a
location in the namespace** (C12:L66-C13:L16; C13:L47-54).

Claim 27 is teaches by Van Huben as in claim 25, **wherein the second group of
services comprises: second functions that enable creating, reading, updating and
deleting the information** (C13:L47-53).

Claim 28 is teaches by Van Huben as in claim 25, **wherein the third group of
services comprises: third functions that enable specifying at least one of the**

following for the second object: information choices; a reference; an information type; whether the information is mandatory; whether the information is multi-valued; whether the information is primary; whether the information is read-only; and whether the information is restricted (C13:L17-22).

Claim 29 is teaches by Van Huben as in claim 25, **further comprising: a fourth object to specify a location of the first object in the namespace** (C14:L9-18).

Claim 30 is teaches by Van Huben as in claim 29, **wherein the fourth object includes: a content repository name** (C14:L9-18); **and a content identifier that is unique for the content repository** (C14:L9-18).

Claim 31 is teaches by Van Huben as in claim 25, **wherein the first object includes: a reference to a parent object** (C11:L1-12).

Claim 32 is teaches by Van Huben as in claim 25, **further comprising: a fifth object to provide a fifth set of services related to searching the VCR** (figure 2, element 20; C11:L45-49).

Claim 33 is teaches by Van Huben as in claim 25, **wherein: the second object associates a name and at least one value** (C14:L15-18); **and wherein the at least one value can be stored in one of the at least one content repository** (C13:L44-53).

Claim 34 is teaches by Van Huben as in claim 33, **wherein: the at least one value can be a text string, a number, an image, an audio/visual presentation, or binary data** (C14:L40-48).

Claim 35 is teaches by Van Huben as in claim 25, **wherein: the first object is**

hierarchically related to other objects and the at least one content repository

(C11:L1-12; C13:L44-46).

Claim 36 is teaches by Van Huben as in claim 25, **wherein: there is no second**

object (figure 2, element 21; by stating that there is no second object the applicant is

also removing the functionality of the third object, thus the whole system seems be

represented as one object).

Claim 37 is teaches by Van Huben as in claim 25, **further comprising: a sixth**

object to provide a sixth group of services related to configuring the VCR (figure

2, element 20; C11:L45-49).

Remarks

5.   In response to applicant's argument that there is no suggestion to combine the

references, the examiner recognizes that obviousness can only be established by

combining or modifying the teachings of the prior art to produce the claimed invention

where there is some teaching, suggestion, or motivation to do so found either in the

references themselves or in the knowledge generally available to one of ordinary skill in

the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re*

Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it would have

been obvious to one ordinary skill in the data processing art at the time of the present

invention to combine the cited references because VCR represents a plurality content

repositories logically as one single content repository of Sim's teaching would have

allowed Van Huben' system to optimized, so that large payload files can be distributed

across existing networks (including the Internet and corporate intranets) using a

transport layer network overlay to push content to the edge of the network as suggested

by Sim's at col. 9, lines 9-12.

In response to applicant's argument on page 10, *a prima facie case of*

obviousness is established when the teachings from the prior art itself would appear to

have suggested the claimed subject matter to a person of ordinary skill in the art. Once

such a case is established, it is incumbent upon appellant to go forward with objective

evidence of unobviousness. In re Fielder, 471 F.2d 640, 176 USPQ 300 (CCPA 1973).

Examiner is entitled to give claim limitations their broadest reasonable

interpretation in light of the specification.

Interpretation of Claims-Broadest Reasonable Interpretation

During patent examination, the pending claims must be 'given the broadest

reasonable interpretation consistent with the specification.' Applicant always has the

opportunity to amend the claims during prosecussion and broad interpretation by the

examiner reduces the possibility that the claim, once issued, will be interpreted more

broadly than is justified. In re Prater, 162 USPQ 541,550-51 (CCPA 1969).

Reference is made to MPEP 2144.01 - Implicit Disclosure

"[I]n considering the disclosure of a reference, it is proper to take into account not only
specific teachings of the reference but also the inferences which one skilled in the art
would reasonably be expected to draw therefrom." In re Preda, 401 F.2d 825, 826,
159 USPQ 342, 344 (CCPA 1968)
Subsequent to an analysis of the claims it was revealed that a number of

limitations recited in the claims belong in the prior art and thus encompassed and/or

implicitly disclosed in the reference (s) applied and cited. It is logical for the examiner to

focus on the limitations that are "crux of the invention" and not involve a lot of energy

and time for the things that are not central to the invention, but peripheral. The examiner

is aware of the duties to address each and every element of claims, however, it is also

important that a person prosecuting a patent application before the Office or an

stakeholders of patent granting process make effort to understand the level of one of

ordinary skill in the (data processing) art or the level one of skilled in the (data

processing) art, as encompassed by the applied and cited references. The

administrative convenience derived from such a cooperation between the attorneys and

examiners benefits the Office as well the patentee.

In view of the above, the examiner contends that all limitations as recited in the

claims have been addressed in this Action.

For the above reasons, Examiner believed that rejection of the last Office action
was proper.

In response to applicant's argument, to combine the references, the examiner recognizes

that obviousness can only be established by combining or modifying the teachings of the prior

art to produce the claimed invention where there is some teaching, suggestion, or motivation to

do so found either in the references themselves or in the knowledge generally available to one of

ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In

re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

"Test of obviousness is not whether features of secondary reference may be bodily

incorporated into primary reference's structure, nor whether claimed invention is expressly

suggested in any one or all of references; rather, <u>test is what combined teachings of references</u>

<u>would have suggested to those of ordinary skill in art</u>."

In re Keller, Terry, and Davies, 208 USPQ 871 (CCPA 1981).

"Reason, suggestion, or motivation to combine two or more prior art references in single invention may come from references themselves, from knowledge of those skilled in art that certain references or disclosures in references are known to be of interest in particular field, or from nature of problem to be solved;" Pro-Mold and Tool Co. v. Great Lakes Plastics Inc. U.S. Court of Appeals Federal Circuit 37 USPQ2d 1626 Decided February 7, 1996 Nos. 95-1171, - 1181

"[q]uestion is whether there is something in prior art as whole to suggest desirability, and thus obviousness, of making combination." Lindemann Maschinenfabrik GMBH v. American Hoist and Derrick Company et al. U.S. Court of Appeals Federal Circuit 221 USPQ 481 Decided Mar. 21, 1984 No 83-1178.

Applicant's admitted prior art also teaches claimed invention.

Contact Information

6.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Mohammad Ali whose telephone number is (571) 272-

4105. The examiner can normally be reached on Monday-Thursday (7:30 am-6:00 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Hosain T. Alam can be reached on (571) 272-3978. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Mohammad Ali
Primary Examiner
Art Unit 2166

MA
March 3, 2007